

CLAIMS

WHAT IS CLAIMED IS:

1. An intelligent docking station (IDS) system, comprising:

a docking station having a co-processor capable of converting a
hand held-based data element into a device enabled data element;

a bus that couples the docking station to a handheld computer; and

a device coupled to the docking station.
2. The IDS system of claim 1 wherein the device is a monitor.
3. The IDS system of claim 1 wherein the device is a mouse.
4. The IDS system of claim 1 wherein the device is memory.

5. The IDS system of claim 1 wherein the bus is a wireless connection.

6. The IDS system of claim 1 wherein the device coupled to the docking station is integrated with the IDS.

7. The IDS of claim 1 further comprising a communication driver integrated with the IDS, the communication driver capable of converting signals between a bus-enabled data element and an IDS enabled data element.

8. The IDS of claim 1 further comprising a communication driver integrated with the handheld device, the communication driver capable of converting signals between a bus-enabled data element and a handheld data element.

9. The IDS of claim 1 wherein the IDS comprises an IDS Coprocessor having an IDS OS capable of directing a top-level device driver and a low-level device driver, wherein the low-level device driver is enabled to convert between a device data element and a IDS enabled data element.

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10. A software system for an intelligent docking station, comprising:

an IDS operating system;

a communication driver, the communication driver capable of sending and receiving bus-enabled data elements;

a low-level device driver, the low-level device driver capable of sending and receiving device-based data elements; and

a top-level device driver, the top-level device driver capable of assembling and formatting data elements for a low-level device driver.

11. The system of claim 10 wherein the IDS computer operating system is enabled to convert a data element between a type compatible with the low-level device driver, and a type compatible with the top-level device driver.

12. A software system for enabling a handheld computer to use an intelligent docking station, the system comprising:

an IDS operating system;

5 a low-level device driver in communication with the IDS operating system;

a top-level device driver in communication with the IDS operating system; and

10 a communication driver in communication with the top level device driver, the communication driver capable of converting signals between a bus-enabled data element and a handheld data element.

13. The software system of claim 12 further comprising a bus coupled between the communication driver and a second communication driver located in a handheld.

15 14. The software system of claim 13 wherein the bus is a wireless system.

15. The software system of claim 13 further comprising a top-level device driver coupled between the second communication driver and a handheld OS.

16. The software system of claim 12 wherein the low-level device driver is a keyboard driver.

17. The software system of claim 12 wherein the low-level device driver is a monitor driver.

18. The software system of claim 12 wherein the low-level device driver is capable of reading and writing data to memory.

19. The software system of claim 12 wherein the bus is a Bluetooth network.

20. The software system of claim 12 wherein the bus is an optical bus.